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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,124

11/18/2005

Tony Amato

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06/25/2008

NIXON PEABODY, LLP

401 9TH STREET, NW

SUITE 900

WASHINGTON, DC 20004-2128

EXAMINER

GORDON, BRYAN P

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

06/25/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,124	<b>Applicant(s)</b> AMATO ET AL.	
	<b>Examiner</b> BRYAN P. GORDON	<b>Art Unit</b> 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 10-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12 September 2005, 23 June 2006</u> .                         | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I in the reply filed on 25 March 2008 is acknowledged. The traversal is on the ground(s) that the two groups are linked so as to form a single inventive concept under PCT Rule 13.1 and 13.2. This is not found persuasive because even though applicant amended independent claim 1 to include a forging and/or casting process, which is a method, the method of making the device is not germane to patentability of the device and therefore is given little patentable weight.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehler (US PN 5,110,403) and in view of Frei (WO 99/01235).

6. Considering claim 1, Ehler teaches the apparatus for applying ultrasonic energy to sewage slurry (col. 11 lines 15-24).

However, Ehler does not teach the applicator having an outwardly facing surface, the apparatus further including an extender which extends from the outwardly facing surface, and at least one booster at the end of the extender remote from the applicator for boosting ultrasonic energy applied thereto to cause the applicator to oscillate, wherein the applicator, extender and booster are integrally formed.

In the same field of endeavor, Frei teaches the applicator (1) having an outwardly facing surface, the apparatus further including an extender (16) which extends from the outwardly facing surface, and at least one booster (3) at the end of the extender remote from the applicator for boosting ultrasonic energy applied thereto to cause the applicator to oscillate, wherein the applicator, extender and booster are integrally formed (page 7 lines 26-35) for the benefit of reducing the stress.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an applicator (1) having an outwardly facing surface, the apparatus further including an extender (16) which extends from the outwardly facing surface, and at least one booster (3) at the end of the extender remote from the applicator for boosting ultrasonic energy applied thereto to cause the applicator

to oscillate, wherein the applicator, extender and booster are integrally formed with Ehlert's device for the benefit described above.

7. Considering claim 2, Ehlert (Figure 2) teaches the applicator has a central aperture defined by an inwardly facing surface (203).

8. Considering claim 3, Ehlert teaches wherein the inwardly facing surface oscillates when ultrasonic energy is applied to the apparatus. It would be obvious to one of ordinary skill in the art this takes place since Ehlert teaches a vibrating horn which will oscillate when power is supplied.

9. Considering claim 4, the method of forming the integral applicator, extender and booster are not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

10. Considering claim 5, Frei teaches wherein the extender and booster are formed from metal (page 7 lines 25-36).

11. Considering claim 6, Frei teaches wherein the metal is an alloy (page 7 lines 30-33).

12. Considering claim 7, Frei teaches wherein the alloy is a titanium-containing alloy (page 10 lines 6-8).

13. Considering claim 8, Frei discloses the claimed invention except for the titanium-aluminum-containing alloy. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the alloy a titanium-aluminum-containing alloy, since it has been held to be within the general skill of a worker in the

art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

14. Considering claim 9, Frei discloses the claimed invention except for the titanium, aluminum and vanadium in a molar ratio of 6:4:1. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a molar ration of 6:4:1, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

### ***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN P. GORDON whose telephone number is (571)272-5394. The examiner can normally be reached on Monday-Thursday 8:00-5:30, Friday 7:30-4:00.

16. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schubert can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2834

17. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. P. G./  
Examiner, Art Unit 2834  
/Bryan P Gordon/  
Examiner, Art Unit 2834

/Darren Schuberg/  
Supervisory Patent Examiner, Art Unit 2834